

satellites from the earth. These events have a major impact on voiceband data performance.

15.2.5.4.2.3.2 The maximum digital timing jitter allowed in the 10 Hz to 8 kHz frequency band at any network interface or any terminal equipment in the network is 5 Unit Intervals (UI). The maximum digital timing jitter allowed in the 8 kHz to 40 kHz frequency band is 0.1 UI. The objective for wander is less than 28 UI at any network interface or terminal equipment.

15.2.5.4.2.4 DS-1 Errored Seconds

15.2.5.4.2.4.1 An Errored Second (ES) on a DS-1 facility is any second during which at least 1 bit is in error. The impact of an ES on performance depends on the number of errors that occur during a second. Typically, voice performance is not significantly impacted by ES but they can cause errors in voiceband data transmissions.

15.2.5.4.2.4.2 Each ILEC network shall have less than 20 ESs per 24 hour period.

15.2.5.4.2.5 DS-1 Severely Errored Seconds

15.2.5.4.2.5.1 A severely Errored Second (SES) is any second during which a DS-1 has an error rate exceeding 0.001. An SES can be caused by a loss of framing, a slip, or a protection switch. SESs have impacts on both voice and voiceband data performance. For voice, a SES will sound like a burst of noise or static. SESs that occur during a voiceband data transmission cause a significant burst of errors and can cause modems to retrain.

15.2.5.4.2.5.2 The digital portion of each NID to POP connection shall have less than 2 SESs per 24 hour period.

15.2.5.4.2.6 Short Failure Events

15.2.5.4.2.6.1 A Short Failure Event (SFE) is a Loss of Frame (LOF) event of less than two minutes' duration. An LOF event is declared when, on detection of a Loss of Signal (LOS) or Out-of-Frame (OOF), a rise-slope-type integration process starts that declares a LOF after 2.5 ± 0.5 sec. of continuous LOS or OOF. If the LOS or OOF is intermittent the integration process shall decay at a slope of $1/5$ the rise slope during the period when the signal is normal. Thus, if the ratio of a LOS or OOF to a normal signal is greater than $1/2$, a LOF will be declared. A LOS condition shall be declared when the Network Channel Terminating Equipment has determined that 175 ± 75 successive pulse positions with no pulses of either positive or negative polarity have occurred. An OOF condition shall be declared when either Network equipment or Digital Terminal Equipment detects errors in the framing pattern.

15.2.5.4.2.6.2 There shall be fewer than 1 SFE per month.

15.2.5.5 Service Availability and Reliability

Availability refers to the time period during which the service is up and usable for its intended purpose. Reliability refers to the probability that a task will be completed successfully, given that it is successfully begun.

15.2.5.5.1 Blocked Calls

15.2.5.5.1.1 Blocking is the fraction of call origination attempts denied service during a stated measurement period. Blocking occurs because of competition for limited resources within the network.

15.2.5.5.1.2 For intraLATA toll service and local exchange service, the blocking level from originating (NID) to terminating NID shall not exceed 1% in any hour, except under

conditions of service disruption. For access to or egress from a long distance network, the blocking rate shall not exceed 0.5% in any hour.

15.2.5.5.2 Downtime

Downtime is the period of time that a system is in a failed state.

15.2.5.5.2.1 The average downtime for all subscriber Loop Combinations shall be less than 49 minutes per year. The maximum downtime for 99% of all subscriber Loop Combinations shall be less than 74 minutes per year.

15.2.5.5.2.2 The average downtime for an end office switch shall be less than 3 minutes per year. The average downtime for individual trunks shall be less than 28 minutes per year. The average downtime for digital trunk groups shall be less than 20 minutes per year. The average downtime for an individual line appearance at the switch shall be less than 28 minutes per year. The average downtime for a Remote Terminal (RT) shall be less than 17 minutes per year. The average downtime for an individual line on a Remote Terminal (RT) shall be less than 13 minutes per year.

15.2.5.5.2.3 The mean time to repair (MTTR) of any equipment at an attended site shall be less than 3 hours. The mean time to repair (MTTR) of any equipment at an unattended site shall be less than 4 hours. 95% of all repairs to the network interface (NID) shall be completed within 24 hours.

15.2.5.5.2.4 There shall be no downtime due to power failures at the switch.

15.2.5.5.2.5 The probability of a stable call being cut off shall be less than 20 cutoffs per one million 1 minute calls.

15.2.5.5.2.6 The rate of ineffective machine attempts at the end office shall be less than 0.0005 (5 failures per 10,000 call attempts).

15.2.5.5.2.7 ILEC shall meet all requirements for private line services in TR-NWT-000335, ANSI T1.512-1994.

15.2.5.5.3 Dial Tone Delay

15.2.5.5.3.1 Dial-Tone Delay is the time period between a customer off-hook and the receipt of dial tone from an originating end office. Dial-Tone Delay has a significant effect on customer opinion of service quality.

15.2.5.5.3.2 The average dial-tone delay shall not exceed 1.5% of calls delayed more than 3 seconds. At most 20% of calls during the high day busy hour (HDBH) shall experience dial-tone delay greater than 3 seconds.

15.2.5.5.4 Dial Tone Removal

15.2.5.5.4.1 Dial tone removal is the time between recognition of the first address digit to the removal of dial tone on the line.

15.2.5.5.4.2 The maximum dial tone removal interval shall be ≤ 500 milliseconds.

15.2.5.5.5 Post Dial Delay

15.2.5.5.5.1 Post Dial Delay (PDD) is the amount of time a caller must wait after entering or dialing the last digit of a Destination Telephone Number (DTN) before hearing a valid audible network response. The PDD for an end user is measured from the time the caller has pressed or dialed the last digit of a DTN until receipt of an audible network response.

15.2.5.5.5.2 The requirements given reflect an end-to-end CCS7 protocol for MCIm end users. Where a

mixture of CCS7 and inband (MF) signaling protocols are employed, an increase in the PDD can be expected.

15.2.5.5.5.2.1 PDD 1 - A - Intra LSO

15.2.5.5.5.2.1.1 Intra-LSO calls do not employ external signaling protocols. The PDD for intra-LSO calls flows are dependent upon the processor cycle time and traffic load conditions. This PDD is assumed to be between customers on the same LSO, between the Remote Switch Modules (RSMs) on the same Host, or between an RSM and Host customers.

15.2.5.5.5.2.1.2 The objective for intra-LSO PDD is less than 310 milliseconds for 50% of all calls and less than 460 milliseconds for 95% of all calls.

15.2.5.5.5.2.2 PDD1 - B - LSO to Another Local LSO

15.2.5.5.5.2.2.1 The signaling protocols from an LSO to another LSO are assumed to employ out-of-band Common Channel Signaling System 7 (CCS7) format. Local calls, that is, calls from an LSO to another LSOs are assumed to have no more than one pair of Signaling Transfer Point Switches (STPs) and no more than one data base dip.

15.2.5.5.5.2.2.2 This PDD is expected to be better than the MCIT Long Distance objective with an average PDD of ≤ 8.70 seconds with 95% ≤ 1.34 seconds.

15.2.5.5.5.2.3 PDD1 - C - MCIm LSO to Other LSO

15.2.5.5.5.2.3.1 Calls from an MCIm LSO to other LSOs are dependent upon the interface agreements between MCIm and the LSO service provider and may employ CCS7, inband (MF) or a combination of both protocols.

15.2.5.5.5.2.3.2 Calls from an MCIm LSO to another LSO via the Public Switched Telecommunications

Network (PSTN), using end-to-end CCS7 signaling protocols, can expect to meet the MCIm PDD objectives of an average of 2.0 seconds with 95% in ≤ 2.5 seconds. Calls from an MCIm LSO via the PSTN to LSOs outside the local service area are assumed to use CCS7 signaling protocols to the MCIm switch. The egress signaling protocols from the MCIT Switched Network to the many different local telephone company service providers however does not necessarily utilize CCS7 signaling. There are three basic egress signaling configuration. They are:

15.2.5.5.2.3.2.1 Network Inter-Connect, CCS7 between MCIm and the local telephone company.

15.2.5.5.2.3.2.2 Inband Multifrequency (MF) signaling protocols without a ILEC egress tandem in the connection.

15.2.5.5.2.3.2.3 Inband MF signaling protocols with a ILEC egress tandem in the connection.

15.2.4.6.5.2.3.2.3.1 Calls from an MCIm LSO to other LSOs outside the local service area are assumed to have multiple STPs for 1+ traffic in the access and PSTN portion of the connection. The egress from the PSTN for 1+ traffic is again dependent upon the interface agreements in that service area and may consist of CCS7 or inband MF protocols.

15.2.4.6.5.2.3.2.3.2 Calls from an MCIm's LSO to another MCIm LSO with a mixture of CCS7 or all inband signaling protocols are expected to receive PDDs on the average of 2.9 seconds with 95% in ≤ 6.5 seconds.

15.2.5.5.2.4 Impact of Number Portability (NP)

If a call forwarding option is used as an interim solution for NP, the delay due to additional switching in the local access shall not exceed 0.4 seconds (95th percentile) in addition to the PDDs described above.

15.2.5.5.2.5 Custom Local Area Subscriber Services (CLASS)

CLASSSM features such as Calling Name Delivery can contribute to the PDD of a call. This delay is caused by the additional time (ILEC option) before the ringing interval commences. This default delay is 3 seconds. Optional settings are available in 1 second intervals from 1 to 6 seconds. Calls to DTNs that have CLASSSM features, particularly with calling name delivery, can expect to experience from 1 to 6 seconds (3 seconds default) of additional PDD compared to the PDDs shown for PDD1-C. MCI will specify optimal settings.

15.2.5.5.2.6 Partial Dial Timing

15.2.5.5.2.6.1 The interval between each information digit from a customer's line, until the LSO or switching system has determined that the digit string is incomplete.

15.2.5.5.2.6.2 For customer lines, partial dial timing shall be ≥ 16 seconds and ≤ 24 seconds. For trunks, inband signaling time-out shall be ≥ 5 seconds and ≤ 20 seconds.

15.2.5.6 Local Switching

ILEC shall provide performance equal to or better than the requirements for Local Switching set forth in Bellcore LSSGR TR-TSY-000511. Post dial delay for connections to MCI local operator services shall be no worse than Operator Services provided by ILEC. Additionally, post dial delay from the Operator Services to destination numbers shall be no worse than that provided by ILEC. Post dial delay for connections to MCI local directory services shall be no worse than directory services provided by ILEC. Additionally, post dial delay from the directory system to destination numbers shall be no worse than that provided by ILEC.

15.2.5.7 Operator Systems

Operator System connections shall comply with the requirements for the Loop Combination, Local Switching, Operator Service, and Directory Assistance Service requirements.

15.2.5.8 Common Transport

Specific requirements for this Network Element or Ancillary Function are in the Common Transport section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between MCI and ILEC consistent with sound engineering principles.

15.2.5.9 Dedicated Transport

Specific requirements for this Network Element are in the Dedicated Transport section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." (Allocation of impairments shall be negotiated between MCI and ILEC.) consistent with sound engineering principles.

15.2.5.10 Signaling Transfer Points

Specific requirements for this Network Element are in the Signaling Transfer Points section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." (Allocation of impairments shall be negotiated between MCI and ILEC.)

15.2.5.11 Signaling Link Transport

Specific requirements for this Network Element are in the Signaling Link Transport section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between MCI and ILEC consistent with sound engineering principles.

15.2.5.12 SCPs/Databases

The performance requirements for databases (NP, LIDB, E911, etc.) vary depending on the database and the applications it supports. Database-specific performance requirements are included in the sections addressing individual Network Elements and in applicable Bellcore documents. In all cases, the query response time, availability, accuracy, updating capabilities, and other performance parameters shall at least be at parity with those services as provided to ILEC or other customer.

15.2.5.13 Tandem Switching

Specific requirements for this Network Element are in the Tandem Switching section. In all cases the performance of this Network Element shall meet the general requirements stated in "General Performance Requirements." Allocation of impairments shall be negotiated between MCI and ILEC consistent with sound engineering principles.

15.2.6 Test and Verification

15.2.6.1 ILEC shall permit MCI to confirm acceptable performance of any Network Element.

15.2.6.1.1 At MCI's request, ILEC will provide access to the Network Element sufficient for MCI to test the performance of that Network Element to MCI's satisfaction.

15.2.6.1.2 At MCI's request, ILEC will perform tests to confirm acceptable performance and provide MCI with documentation of test procedures and results acceptable to MCI.

15.3 Protection, Restoration, and Disaster Recovery

15.3.1 Scope:

This Section refers specifically to requirements on the use of redundant network equipment and facilities for protection, restoration, and disaster recovery.

15.3.2 Requirements

15.3.2.1 ILEC shall provide protection, restoration, and disaster recovery capabilities at parity with those capabilities

provided for their own services, facilities and equipment (e.g., equivalent circuit pack protection ratios, facility protection ratios).

15.3.2.2 ILEC shall provide Network Elements and Ancillary Functions equal priority in protection, restoration, and disaster recovery as provided to their own services, facilities and equipment.

15.3.2.3 ILEC shall provide Network Elements and Ancillary Functions equal priority in the use of spare equipment and facilities as provided to their own services, facilities and equipment.

15.3.2.4 ILEC shall restore Network Elements which are specific to MCIm end user customers on a priority basis as MCIm may designate.

15.4 Synchronization

15.4.1 Definition:

Synchronization is the function which keeps all digital equipment in a communications network operating at the same average frequency. With respect to digital transmission, information is coded into discrete pulses. When these pulses are transmitted through a digital communications network, all synchronous Network Elements are traceable to a stable and accurate timing source. Network synchronization is accomplished by timing all synchronous Network Elements in the network to a stratum 1 source so that transmission from these network points have the same average line rate.

15.4.2 Technical Requirements

The following requirements are applicable to the case where ILEC provides synchronization to equipment that MCIm owns and operates within a ILEC location. In addition, these requirements apply to synchronous equipment that is owned by ILEC and is used to provide a Network Element to MCIm.

15.4.2.1 The synchronization of clocks within digital networks is divided into two parts: intra-building and inter-building. Within a building, a single clock is designated as

the Building Integrated Timing Supply (BITS), which provides all of the DS1 and DS0 synchronization references required by other clocks in such building. This is referred to as intra-building synchronization. The BITS receives synchronization references from remotely located BITS. Synchronization of BITS between buildings is referred to as inter-building synchronization.

15.4.2.2 To implement a network synchronization plan, clocks within digital networks are divided into four stratum levels. All clocks in strata 2, 3, and 4 are synchronized to a stratum 1 clock, that is, they are traceable to a stratum 1 clock. A traceable reference is a reference that can be traced back through some number of clocks to a stratum 1 source. Clocks in different strata are distinguished by their free running accuracy or by their stability during trouble conditions such as the loss of all synchronization references.

15.4.2.2.1 Intra-Building

15.4.2.2.1.1 Within a building, there may be different kinds of equipment that require synchronization at the DS1 and DS0 rates. Synchronization at the DS1 rate is accomplished by the frequency synchronizing presence of buffer stores at various DSI transmission interfaces. Synchronization at the DS0 rate is accomplished by using a composite clock signal that phase synchronizes the clocks. Equipment requiring DS0 synchronization frequently does not have adequate buffer storage to accommodate the phase variations among different equipment. Control of phase variations to an acceptable level is accomplished by externally timing all interconnecting DS0 circuits to a single clock source and by limiting the interconnection of DS0 equipment to less than 1,500 cable feet. Therefore, a BITS shall provide DS1 and composite clock signals when the appropriate composite signal is a 64-kHz 5/8th duty cycle, return to zero with a bipolar violation every eighth pulse (B8RZ).

15.4.2.2.2 Inter-Building

15.4.2.2.2.1 ILEC shall provide inter-building synchronization at the DSI rate, and the BITS shall accept the primary and secondary synchronization links from BITS in other buildings. From hierarchical considerations, the BITS shall be the highest stratum clock within the building and ILEC shall provide operations capabilities (this includes, but is not limited to: synchronization reference provisioning; synchronization reference status inquiries; timing mode status inquiries; and alarm conditions).

15.4.3 Synchronization Distribution Requirements

15.4.3.1 Central office BITS shall contain redundant clocks meeting or exceeding the requirements for a stratum 2 clock as specified in ANSI T1.101-1994 and Bellcore *TR-NWT-001244 Clocks for the Synchronized Network: Common Genetic Criteria*.

15.4.3.2 Central office BITS shall be powered by primary and backup power sources.

15.4.3.3 If both reference inputs to the BITS are interrupted or in a degraded mode (meaning off frequency greater than twice the minimum accuracy of the BITS, loss of frame, excessive bit errors, or in Alarm Indication Signal), then the stratum clock in the BITS shall provide the necessary bridge in timing to allow the network to operate without a frame repetition or deletion (slip free) with better performance than 1 frame repetition or deletion (slip) per week.

15.4.3.4 DS1s multiplexed into a SONET synchronous payload envelope within an STS-n (where n is defined in ANSI T1.105-1995) signal shall not be used as reference facilities for network synchronization.

15.4.3.5 The total number of Network Elements cascaded from the stratum 1 source shall be minimized.

15.4.3.6 A Network Element shall receive the synchronization reference signal only from another Network Element that contains a clock of equivalent or superior quality (stratum level).

15.4.3.7 ILEC shall select for synchronization those facilities shown to have the greatest degree of availability (absence of outages).

15.4.3.8 Where possible, all primary and secondary synchronization facilities shall be physically diverse (this means the maximum feasible physical separation of synchronization equipment and cabling).

15.4.3.9 No timing loops shall be formed in any combination of primary and secondary facilities.

15.4.3.10 An Operations Support System (OSS) shall continuously monitor the BITS for synchronization related failures or degradation.

15.4.3.11 An OSS shall continuously monitor all equipment transporting synchronization facilities for synchronization related failures or degradation.

15.4.3.12 For non-SONET equipment, ILEC shall provide synchronization facilities which, at a minimum, comply with the standards set forth in ANSI T1.101-1994.

15.4.3.13 For SONET equipment, ILEC shall provide synchronization facilities that have time deviation (TDEV) for integration times greater than 0.05 seconds and less than or equal to 10 seconds, that is less than or equal to 10 nanoseconds. TDEV, in nanoseconds, for integration times greater than 10 seconds and less than 1000 seconds, shall be less than 3.1623 times the square-root of the integration time. For example, for integration times of 25 seconds, TDEV shall be less than 15.8 nanoseconds.

15.5 SS7 Network Interconnection

15.5.1.1 Definition:

Figure 8 depicts Signaling System 7 (SS7) Network Interconnection. SS7 Network Interconnection is the interconnection of MCI local Signaling Transfer Point (STPs) with ILEC STPs. This interconnection provides connectivity that enables the exchange of SS7 messages among ILEC switching systems and databases (DBs), MCI

local or tandem switching systems, and other third-party switching systems directly connected to the ILEC SS7 network.

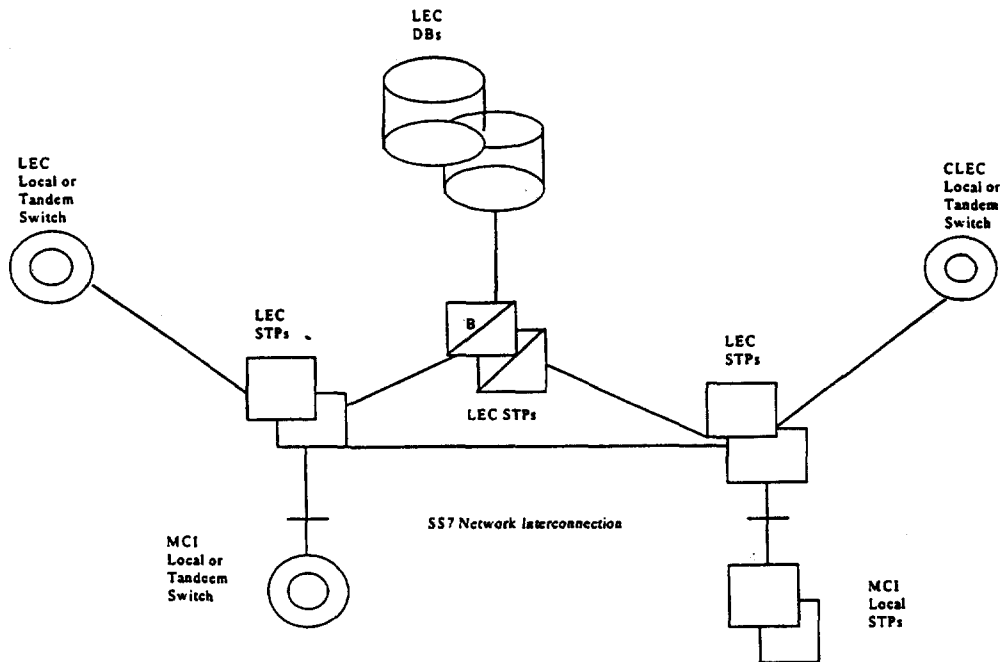


Figure 8. SS7 Network Interconnection

15.5.2 Technical Requirements

15.5.2.1 SS7 Network Interconnection shall provide connectivity to all components of the ILEC SS7 network. These include:

15.5.2.1.1 ILEC local or tandem switching systems;

15.5.2.1.2 ILEC DBs; and

15.5.2.1.3 Other third-party local or tandem switching systems.

15.5.2.2 The connectivity provided by SS7 Network Interconnection shall fully support the functions of ILEC switching systems and DBs and MCI or other third-party switching systems with A-link access to the ILEC SS7 network.

15.5.2.3 In particular, Figure 9 depicts a circumstance where SS7 Network Interconnection shall provide transport for certain types of Transaction Capabilities Application Part (TCAP) messages. If traffic is routed based on dialed or translated digits between an MCI local switching system and a ILEC or other third-party local switching system, either directly or via a ILEC tandem switching system, then it is a requirement that the ILEC SS7 network convey via SS7 Network Interconnection the TCAP messages that are necessary to provide Call Management services (Automatic Callback, Automatic Recall, and Screening List Editing) between the MCI local STPs and the ILEC or other third-party local switch.

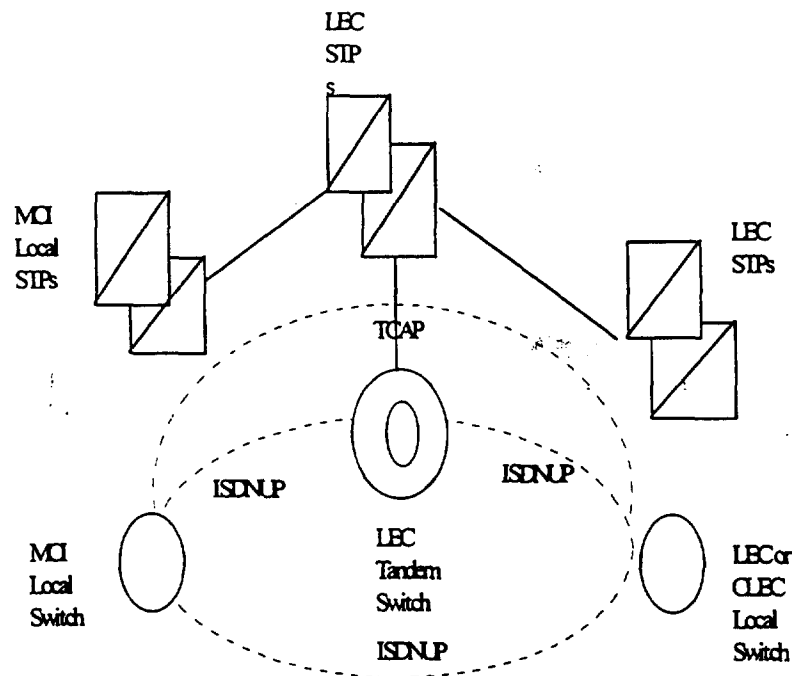


FIGURE 9. Interswitch TCAP Signaling for SS7 Network Interconnection

15.5.2.4 When the capability to route messages based on Intermediate Signaling Network Identifier (ISNI) is generally available on ILEC STPs, the ILEC SS7 Network shall also convey TCAP messages using SS7 Network Interconnection in similar circumstances where the ILEC switch routes traffic based on a Carrier Identification Code (CIC).

15.5.2.5 SS7 Network Interconnection shall provide all functions of the MTP as specified in ANSI T1. 111 (Reference 12.5.2). This includes:

15.5.2.5.1 Signaling Data Link functions, as specified in ANSI T1.111.2;

15.5.2.5.2 Signaling Link functions, as specified in ANSI T1.111.3; and

15.5.2.5.3 Signaling Network Management functions, as specified in ANSI T1.111.4.

15.5.2.6 SS7 Network Interconnection shall provide all functions of the SCCP necessary for Class 0 (basic connectionless) service, as specified in ANSI T1.112 (Reference 12.5.4). In particular, this includes Global Title Translation (GTT) and SCCP Management procedures, as specified in T1.112.4.

15.5.2.7 Where the destination signaling point is a ILEC switching system or DB, or is another third-party local or tandem switching system directly connected to the ILEC SS7 network, SS7 Network Interconnection shall include final GTT of messages to the destination and SCCP Subsystem Management of the destination.

15.5.2.8 Where the destination signaling point is an MCI local or tandem switching system, SS7 Network Interconnection shall include intermediate GTT of messages to a gateway pair of MCI local STPs, and shall not include SCCP Subsystem Management of the destination.

15.5.2.9 SS7 Network Interconnection shall provide all functions of the Integrated Services Digital Network User Part (ISDNUP), as specified in ANSI T1.113.

15.5.2.10 SS7 Network Interconnection shall provide all functions of the TCAP, as specified in ANSI T1.114.

15.5.2.11 If and when Internetwork MTP Routing Verification Test (MRVT) and SCCP Routing Verification Test (SRVT) become approved ANSI standards and available capabilities of ILEC STPs, SS7 Network Interconnection shall provide these functions of the OMAP.

15.5.2.12 SS7 Network Interconnection shall be equal to or better than the following performance requirements:

15.5.2.11.1 MTP Performance, as specified in ANSI T1.111.6;

15.5.2.11.2 SCCP Performance, as specified in ANSI T1.112.5; and

15.5.2.11.3 ISDNUP Performance, as specified in ANSI T1.113.5.

15.5.3 Interface Requirements

15.5.3.1 ILEC shall offer the following SS7 Network Interconnection options to connect MCI or MCI-designated STPs to the ILEC SS7 network:

15.5.3.1.1 D-link interface from MCI STPs.

15.5.3.2 Each interface shall be provided by one or more sets (layers) of signaling links, as follows:

15.5.3.2.2 A D-link layer shall consist of four links, as depicted in Figure 10.

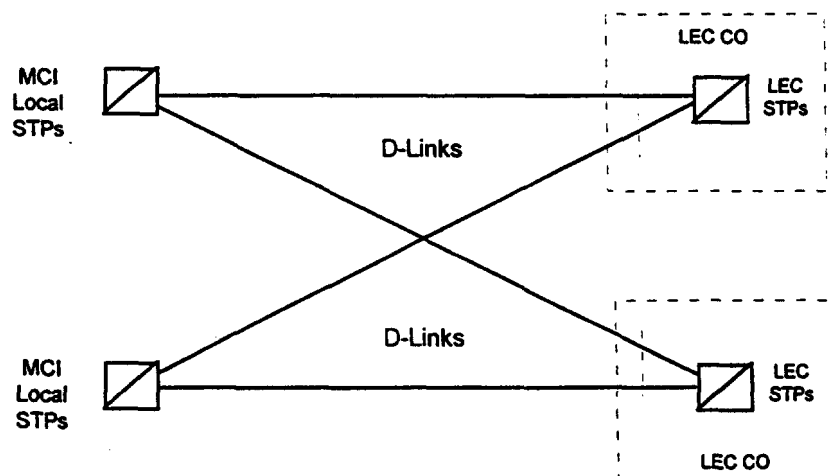


FIGURE 10. D-LINK Interface

15.5.3.3 The Signaling Point of Interconnection (SPOI) for each link shall be located at a cross-connect element, including but not limited to a DSX-1, in the Central Office (CO) where the ILEC STPs is located. There shall be a DS1 or higher rate transport interface at each of the SPOIs. Each signaling link shall appear as a DS0 channel within the DS1 or higher rate interface. ILEC shall offer higher rate DS1 signaling links for interconnecting MCI local switching systems or STPs with ILEC STPs as soon as these become approved ANSI standards and available capabilities of ILEC STPs.

15.5.3.3.1 In each LATA, there will be two signaling points of interconnection (SPOIs). The requirement for two SPOIs is driven by the critical importance attached by all parties to signaling link diversity.

15.5.3.3.2 Each party will designate one of the two SPOIs in the LATA. A SPOI can be any existing cross connect point in the LATA. Since each party will designate a SPOI, we believe that both parties will be incented to select reasonable and efficient SPOI locations.

15.5.3.3.3 Each signaling link requires a port on each party's STP, which each party shall provide without explicit charge.

15.5.3.4 The ILEC CO shall provide intraoffice diversity between the SPOIs and the ILEC STPs, so that no single failure of intraoffice facilities or equipment shall cause the failure of both D-links in a layer connecting to a ILEC STPs.

15.5.3.5 The protocol interface requirements for SS7 Network Interconnection include the MTP, ISDNUP, SCCP and TCAP. These protocol interfaces shall conform to the following specifications:

15.5.3.5.1 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital network User Part (ISDNUP);

15.5.3.5.2 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;

15.5.3.5.3 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and

15.5.3.5.4 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

15.5.3.6 ILEC shall set message screening parameters to block accept messages from MCI local or tandem switching systems destined to any signaling point in the ILEC SS7 network with which the MCI switching system has a legitimate signaling relation.

15.5.4 SS7 Network Interconnection shall be equal to or better than all of the requirements for SS7 Network Interconnection set forth in the following technical references:

15.5.4.1 ANSI T1.110-1992 American National Standard Telecommunications Signaling System Number 7 (SS7) - General Information;

15.5.4.2 ANSI T1.111-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP);

15.5.4.3 ANSI T1.111A-1994 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Message Transfer Part (MTP) Supplement;

15.5.4.4 ANSI T1.112-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Signaling Connection Control Part (SCCP);

15.5.4.5 ANSI T1.113-1995 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Integrated Services Digital Network (ISDN) User Part;

15.5.4.6 ANSI T1.114-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Transaction Capabilities Application Part (TCAP);

15.5.4.7 ANSI T1.115-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Monitoring and Measurements for Networks;

15.5.4.8 ANSI T1.116-1990 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Operations, Maintenance and Administration Part (OMAP);

15.5.4.9 ANSI T1.118-1992 American National Standard for Telecommunications - Signaling System Number 7 (SS7) - Intermediate Signaling Network Identification (ISNI);

15.5.4.10 Bellcore GR-905-CORE, Common Channel Signaling Network Interface Specification (CCSNIS) Supporting Network Interconnection, Message Transfer Part (MTP), and Integrated Services Digital Network User Part (ISDNUP);

15.5.4.11 Bellcore GR-954-CORE, CCS Network Interface Specification (CCSNIS) Supporting Line Information Database (LIDB) Service;

15.5.4.12 Bellcore GR-1428-CORE, CCS Network Interface Specification (CCSNIS) Supporting Toll Free Service;

15.5.4.13 Bellcore GR-1429-CORE, CCS Network Interface Specification (CCSNIS) Supporting Call Management Services; and,

15.5.4.14 Bellcore GR-1432-CORE, CCS Network Interface Specification (CCSNIS) Supporting Signaling Connection Control Part (SCCP) and Transaction Capabilities Application Part (TCAP).

15.6 Network Interconnection

15.6.1 Technical Requirements

15.6.1.1 When requested by MCI, ILEC shall provide interconnections between the ILEC Network Elements

provided to MCI and MCI's network at transmission rates designated by MCI.

15.6.1.2 Traffic shall be combined and routed as follows:

15.6.1.2.1 ILEC shall provide direct trunks for intraLATA traffic (except 911, directory assistance, operator services, and other services that may require special routing) and, at MCI's request, ILEC shall allow MCI to route such traffic either directly to a ILEC tandem or directly to a ILEC end-office. At MCI's option, intraLATA toll and local traffic shall be combined onto one trunk group.

15.6.1.2.2 At MCI's request, ILEC shall receive MCI traffic destined to the ILEC Operator Systems Network Element, on trunks from an MCI end-office or an MCI tandem.

15.6.1.2.3 At MCI's request, ILEC shall receive MCI CAMA-ANI (Centralized Automatic Message Accounting - Automatic Number identification) traffic destined to the ILEC B911 PSAPs, or E911 tandems, on trunks from an MCI end-office.

15.6.1.2.4 At MCI's request, ILEC shall receive MCI SS7 traffic destined to any ILEC S911 tandem on trunks from an MCI end-office.

15.6.1.3 When requested by MCI and a third party carrier, ILEC shall provide interconnections between MCI's network, and the other carrier's network through the ILEC network at transmission rates designated by MCI, including, but not limited to DS1, DS3, and STS-1. ILEC shall combine and route traffic to and from other local carriers and interLATA carriers through the ILEC network, and at MCI's request, ILEC shall record and keep records of such traffic for MCI billing purposes.

15.6.1.4 ILEC shall provide two-way trunk groups for interconnections. At MCI's request, ILEC shall provide unidirectional traffic on such trunks, in either direction, effectively operating them as if they were one-way trunk groups.

15.6.1.5 ILEC shall provision trunks without any user restrictions (e.g., option for two-way trunking, and no unnecessary trunk group fragmentation by traffic types).

15.6.1.6 All trunking provided by ILEC shall adhere to the applicable performance requirements set forth in the "General Performance Requirements" section of this Agreement.

15.6.1.7 At MCIm's request, ILEC shall provide for overflow routing from a given trunk group or groups onto another trunk group or groups as MCIm designates.

15.6.1.8 ILEC and MCIm shall agree on the establishment of two-way trunk groups for the exchange of traffic for other IXC's. These trunk groups can be provided in a "meet point" arrangement.

15.6.1.9 Interconnection shall be made available upon MCIm's request at any technically feasible point of interface. All trunk interconnections shall be provided, including, SS7, MF, DTMF, DialPulse, PRI-ISDN (where available), DID (Direct Inward Dialing), CAMA-ANI, and trunking necessary so that interim NP can be provided.

15.6.1.10 Trunk Interface Requirements

15.6.1.10.1 B911/E911 Trunks

15.6.1.10.1.1 ILEC shall allow MCIm to provide direct trunking to each ILEC B911 serving end office, or ILEC E911 tandem, as is appropriate for the applicable serving area. These trunks are to be provided as one-way trunks from a given MCIm end office to the ILEC 911 end-office or tandem.

15.6.1.10.1.2 ILEC shall provide for overflow 911 traffic to be sent to the ILEC operator services platform or, at MCIm's direction, routed directly to MCIm's operator services platform.

15.6.1.10.2 S911 Trunks

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ATTACHMENT II

LOCAL RESALE

Section 1. Telecommunications Services Provided for Resale

1.1 At the request of MCI, and pursuant to the requirements of the Act, and FCC Rules and Regulations, ILEC shall make available to MCI for unrestricted resale any Telecommunications Service that ILEC currently provides or may offer hereafter. ILEC shall also provide Service Functions, as set forth in this Attachment II. The Telecommunications Services and Service Functions provided by ILEC to MCI pursuant to this Agreement are collectively referred to as "Local Resale."

1.2 To the extent that this Attachment describes services which ILEC shall make available to MCI for resale pursuant to this Agreement, this list of services is neither all inclusive nor exclusive. All Telecommunications Services of ILEC which are to be offered for resale are subject to the terms herein.

1.3 **Features and Functions Subject to Resale.** ILEC shall make all of its Telecommunications Services available for resale to MCI on terms and conditions that are reasonable and nondiscriminatory.

1.4 ILEC will provide MCI with at least the capability to provide an MCI subscriber at least the same level of service quality as ILEC provides its own subscribers with respect to all Telecommunications Services and shall provide such capability in accordance with the specific requirements of Attachment VIII.

1.5 The specific business process requirements and systems interface requirements are set forth in Attachment VIII.

Section 2. General Terms and Conditions for Resale

2.1 **Pricing.** The prices charged to MCI for Local Resale are set forth in Attachment I of this Agreement.

2.2 **No Restrictions on Resale.** MCI may resell to any and all classes of end-users Telecommunications Services obtained from

ILEC under this Agreement, except for Lifeline Assistance and Link-Up or similar services, which MCI may only resell to those subscribers who are eligible for such services. ILEC will not prohibit, nor impose unreasonable or discriminatory conditions or limitations on the resale of its Telecommunications Service. ILEC agrees to remove all tariff restrictions which prohibit or limit the aggregation and resale of any such Telecommunication Services, including, but not limited to, CENTREX aggregation, feature and service aggregation, and resale of Telecommunications Services to another reseller.

2.3 Requirements for Specific Services

2.3.1 CENTREX Requirements

2.3.1.1 At MCI's option, MCI may purchase the entire set of CENTREX features or a subset of any one or any combination of such features. The CENTREX Service provided for resale will meet the requirements of this Subsection 2.3.1.

2.3.1.2 All features and functions of CENTREX Service, including CENTREX Management System (CMS), whether offered under tariff or otherwise, shall be available to MCI for resale, without any geographic or subscriber class restrictions.

2.3.1.3 ILEC shall make CMS information available to MCI at the End Office level via an electronic interface as specified in Attachment VIII.

2.3.1.4 ILEC shall provide to MCI a list by central office of all CENTREX or CENTREX-like features and functions offered by ILEC within ten (10) days of the Effective Date of this Agreement, and shall provide updates to such list as specified in Attachment VIII.

2.3.1.5 All service levels and features of CENTREX Service provided by ILEC for resale by MCI shall meet the service parity requirements set forth in Attachment VIII.